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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/806,873	04/03/2001	Alan Gary Blahey	P1998J096	6495
27810	7590	07/26/2005	EXAMINER	
EXXONMOBIL RESEARCH AND ENGINEERING COMPANY			TOOMER, CEPHIA D	
P.O. BOX 900			ART UNIT	
1545 ROUTE 22 EAST			PAPER NUMBER	
ANNANDALE, NJ 08801-0900			1714	

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/806,873		BLAHEY ET AL.	
	Examiner		Art Unit	
	Cephia D. Toomer		1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,6,9 and 11-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,6,9 and 11-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

This Office action is in response to the amendment filed March 30, 2005 in which claims 1 and 4 were amended.

Upon further review of the claims and the prior art, the indication of allowable subject matter is withdrawn and the prior art rejections are reinstated.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 and its dependents are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is rejected because the scope of the claim is not clear with respect to the viscosity of the engine oil and the amount of viscosity index improver present in the composition. It appears that the base oil and the engine oil may both possess a viscosity of 13 cSt at 100 °C. The claim language about "13.2 cSt at 100 °C" reads on a viscosity of 13 cSt. Therefore, it would appear that no viscosity index improver would be required. Clarification and correction are required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 4-6 and 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blahey (5,726,133).

Blahey teaches a low ash natural gas engine oil and additive system comprising a lubricating oil basestock having a kinematic viscosity at 100 °C of about 5 to 16 cSt, a minor amount of a detergent comprising a mixture of a low TBN alkali or alkaline earth metal salt and at least one more neutral alkali or alkaline earth metal salt, a viscosity index improver and a phenolic antioxidant (see abstract; col. 2, lines 1-11, 25-27). The first detergent has a TBN of about 250 and the second detergent has a TBN that is about half of the first detergent and the mixture contributes a sulfated ash amount of 0.1 to 0.6% (see col. 2, lines 31-67; col. 3, lines 1-9). The lubricating oil may be a mixture of hydrocrackate and solvent refined oils (see col. 3, lines 14-20, 46-58). The phenolic antioxidant is present in the composition in an amount from 0.05 to 1.5 vol.%, the viscosity index improver (VII) is present in an amount up to 15 vol % (see col. 4, lines 27-35, 58-67) and the antiwear agent is present in an amount from about 0.05 to 1.5 vol. % (see col. 4, lines 42-48). The compositions exemplified in table 1 have a KV of 13.5 at 100 °C. Blahey teaches the limitations of the claims other than the differences that are discussed below.

In the first aspect, Blahey differs from the claims in that he does not specifically teach that the basestock does not contain an oil having a viscosity of 20 cSt or higher. However, it is well settled that the omission of a component and its function from a

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combination is an obvious expedient if the remaining components perform the same function as before. *In re Karlson*, 136 USPQ 184; *In re Wilson*, 153 USPQ 340; *In re Marzocchi*, 173 USPQ 228.

In the second aspect, Blahey differs from the claims in that he does not specifically teach that the viscosity of the engine oil is increased to about 13.2 cSt at 100 °C. However, a prima facie case of obviousness exists where the claimed ranges and the prior art do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corps v. Banner*, 227 USPQ 773 (Fed. Cir. 1985). Also, the claim language about 13.2 cSt reads on the viscosity of 13.5 cSt taught by Blahey.

5. Claims 1, 4-6, 9, 10, 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue (US 5,744,430).

Inoue teaches an engine oil composition which has a lower viscosity and a long lifetime (see col. 1, lines 25-41). The composition comprises a base oil having a kinematic viscosity of from 2 to 8 mm²/s at 100 °C and is selected from mineral oil (solvent refined), synthetic and mixtures thereof (see col. 1, lines 60-63; col. 2, lines 55-56; col. 3, lines 1-5); a phenol ashless antioxidant in an amount from 0.1-3% by weight (see col. 2, lines 9-10; col. 5, lines 21-65); a viscosity index improver in an amount from 1 to about 10% by weight (see col. 2, lines 15-17; col. 7, lines 3-26); an alkaline earth metal salicylate detergent having a TBN from 60 to 350 (see abstract; col. 3, lines 54-57). The salicylate may be neutral or overbased (col. 3, lines 17-24). This teaching in view of *In re Kerkhoven*, 205 USPQ 1069 (CCPA 1980) (MPEP 2144.06) (combining

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two components each having the same function) suggests a mixture of the two salicylates. Inoue also teaches that the composition contains from 0.1-15 % antiwear agents (see col. 9, lines 59-65; col. 10, lines 27-28). Inoue teaches the limitations of the claims other than the differences that are discussed below.

Inoue fails to teach that the base oil possesses a kinematic viscosity of between 9 to 13 cSt. However, a prima facie case of obviousness exists where the claimed ranges and the prior art do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corps v. Banner* 227 USPQ 773 (Fed. Cir. 1985). The claimed KV of 9 cSt is close enough to the KV of Inoue's oil (8 cSt) that one skilled in the art would expect that the oils would have the same properties.

Inoue prefers to keep the viscosity of the oil of his invention in the range of 5.6 to 12.5 cSt whereas the viscosity of the oil of the present invention has a viscosity of about 13.2 cSt.

A prima facie case of obviousness exists where the claimed ranges and the prior art do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corps v. Banner* 227 USPQ 773 (Fed. Cir. 1985). The claim language about 13.2 cSt reads on Inoue's oil that has a KV of 12.5.

6. Applicant's arguments filed in the appeal brief of October 8, 2004 have been fully considered but they are not persuasive.

Applicant argues that the compositions of Blahey have the target viscosity of 13.5 cSt at 100 °C and contain a 1200 SN oil, wherein the SN oil has a viscosity greater than 20 cSt at 100 °C. Applicant argues that Blahey may contain an amine antioxidant and up to 15 vol % VII to impart multifunctional viscosity properties to the finished oil. Applicant argues that no skilled artisan would consider using the VII to increase the viscosity of a base oil to 13.2 cSt as does Applicant.

First, it should be pointed out that Blahey does not require a 1200 SN oil. Blahey teaches that the lubricating oil basestock is any natural or synthetic lubricating base oil stock fraction having a kinematic viscosity at 100 °C of about 5 to 16 cSt (see col. 3, lines 10-13). While Blahey exemplifies 1200 SN oil, it is well settled that a reference must be considered in its entirety and is not limited to specific working examples contained therein. In re Fracalossi, 215 USPQ 569 (CCPA 1982).

Second, with respect to the amine antioxidant, Blahey states that the antioxidant is preferably hindered phenols or arylamines. The skilled artisan recognizes that he has a choice as to which antioxidant is used.

Third, the viscosity index improver of Blahey is used in amounts up to 15 vol%. Clearly, the skilled artisan, as well as Blahey, recognizes that the VII does not have to be employed in amounts that impart multifunctional viscosity properties to the base oil. Blahey teaches that the VII may also be multifunctional from the perspective of offering secondary lubricant performance features such as additional dispersancy. See col. 4, lines 62-64.

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Applicant argues that he has discovered that the life of gas engine oils can be enhanced by adding to an oil that does not contain an amine antioxidant and base oil having a viscosity greater than 20 cSt at 100 °C, an amount of VII sufficient to increase the viscosity of the base formulation to about 13.2 cSt at 100 °C.

Blahey teaches that the antioxidant may be a hindered phenol and he does not require a base oil having a viscosity greater than 20 cSt at 100 °C. Therefore, Applicant merely recognizing additional advantages or latent properties present in the prior art has not rebutted the prima facie case of obviousness. The fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. *In re Wiseman*, 201 USPQ 658 (CCPA 1979); *Ex parte Obiaya* 227 USPQ 58 (BPAI 1985); *In re Linter*, 173 USPQ 560 (CCPA 1972).

Applicant argues that there is no motivation to modify Inoue to arrive at the claimed composition.

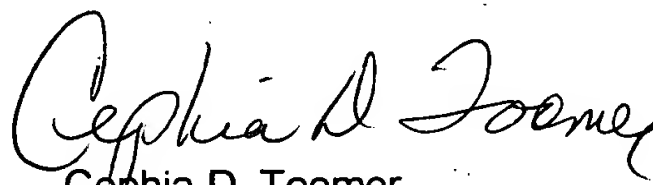
Inoue teaches an engine oil that contains the same additives as those of the present invention. Inoue teaches proportions that are within the claimed ranges. Inoue differs only in the viscosity of the oil (base and final product). However, given that the base oil of Inoue has a kinematic viscosity of 8 cSt at 100 °C this viscosity is close enough to that of the present claimed oil that it would be reasonable to expect that the engine oils would have the same properties, especially in view of the fact that Inoue desires an engine oil which has a long lifetime.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia D. Toomer whose telephone number is 571-272-1126. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Cephia D. Toomer
Primary Examiner
Art Unit 1714

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